



Dkt. 62166/JPW/MVM

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Thomas M. Jessell et al.  
Serial No.: 09/654,462 Group Art Unit: 1632  
Filed : September 1, 2000 Examiner: A.M. Falk, Ph.D.  
For : GENETIC DEMONSTRATION OF REQUIREMENT FOR NKX6.1  
AND NKX2.2 IN VENTRAL NEURON GENERATION

Date of Notice  
of Allowance: January 5, 2005 Confirmation No.: 6093

Issue Fee Due: April 5, 2005

1185 Avenue of the Americas  
New York, New York 10036  
January 24, 2005

Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

A Notice of Allowance was issued by the United States Patent and Trademark Office on January 5, 2005 in connection with the above-identified application. Therefore, the issue fee is due on April 5, 2005. Accordingly, this supplemental Information Disclosure Statement and accompanying Request for Continued Examination ("RCE") in compliance with 37 C.F.R. §1.114, which are being submitted in lieu of paying the issue fee, are considered timely.

Applicants are filing this supplemental Information Disclosure Statement to supplement the Information Disclosure Statement filed on October 23, 2001, and the supplemental Information Disclosure Statements filed on February 13, 2002, July 16,

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2004 and November 9, 2004 in connection with the subject application.

In accordance with their duty of disclosure under 37 C.F.R. §1.56 and pursuant to 37 C.F.R. §1.97(b)(4), applicants direct the Examiner's attention to the references which are listed on the attached Form PTO-1449 (**Exhibit A**). Copies of references 4 and 7-8 are attached hereto as **Exhibits 1-3**, respectively.

1. PCT International Application No. PCT/US95/02315, filed February 24, 1995, International Publication No. WO95/23223 A1, published August 31, 1995 on behalf of The Trustees of Columbia University in the City of New York;
2. PCT International Application No. PCT/GB98/01862, filed June 25, 1998, International Publication No. WO99/00516 A2, published January 7, 1999 on behalf of Medical Research Council;
3. PCT International Application No. PCT/US99/22517, filed September 29, 1999, International Publication No. WO00/18884 A1, published April 6, 2000 on behalf of The Trustees of Columbia University in the City of New York;
4. PCT International Application No. PCT/US99/18525, filed August 13, 1999, International Publication No. WO00/09676 A2, published February 24, 2000 on behalf of California Institute of Technology (**Exhibit 1**);
5. Briscoe, J. et al. (1999) "Homeobox gene *Nkx2.2* and

specification of neuronal identity by graded Sonic hedgehog signalling," *Nature* 398: 622-627;

6. Cai, J. et al. (1999) "Expression and regulation of the chicken *Nkx-6.2* homeobox gene suggest its possible involvement in the ventral neural patterning and cell fate specification," *Developmental Dynamics* 216: 459-468;
7. Cai, J. et al. (2001) "Mice lacking the *Nkx6.2* (*Gtx*) homeodomain transcription factor develop and reproduce normally," *Molecular and Cellular Biology* 21: 4399-4403 (**Exhibit 2**);
8. Palmer, T.D. et al. (1999) "Fibroblast growth factor-2 activates a latent neurogenic program in neural stem cells from diverse regions of the adult CNS," *The Journal of Neuroscience* 19: 8487-8497 (**Exhibit 3**);
9. Qiu, M. et al. (1998) "Control of anteroposterior and dorsoventral domains of *Nkx-6.1* gene expression relative to other *Nkx* genes during vertebrate CNS development," *Mechanisms of Development* 72: 77-88;
10. Sander, M. et al. (2000) "Ventral neural patterning by *Nkx* homeobox genes: *Nkx6.1* controls somatic motor neuron and ventral interneuron fates," *Genes & Development* 14: 2134-2139; and
11. Tanabe, Y. et al. (1998) "Specification of motor neuron identity by the *MNR2* homeodomain protein," *Cell* 95: 67-

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80.

European Patent Application No. 01968382.0, filed August 31, 2001, is the regional stage application of PCT International Application No. PCT/US01/27256, filed August 31, 2001, which is the foreign counterpart claiming priority of and the benefit under 35 U.S.C. §120 of the subject application. A Supplementary Partial European Search Report was issued by the European Patent Office on December 12, 2004 in connection with European Patent Application No. 01968382.0. A copy of the Search Report is attached hereto as **Exhibit B**. Above listed references 1-11 were cited in the Search Report. Applicants attach hereto copies of references 4, 7 and 8 as **Exhibits 1-3**, respectively.

Applicants note that above-listed references 5 and 9 were previously submitted to and considered by the United States Patent and Trademark Office in an Information Disclosure Statement filed on October 23, 2001 in connection with this application.

Applicants also note that above-listed references 6 and 11 were previously submitted to and considered by the United States Patent and Trademark Office in a supplemental Information Disclosure Statement filed on July 16, 2004 in connection with this application.

Applicants further note that above-listed references 1-3 and 10 were previously submitted to and considered by the United States Patent and Trademark Office in a supplemental

Applicants: Thomas M. Jessell et al.  
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Page 5

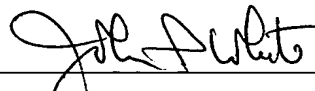
Information Disclosure Statement filed on November 9, 2004 in connection with this application.

Accordingly, copies of above-listed references 1-3, 5-6, and 9-11 are not provided herewith since they were previously submitted to the United States Patent and Trademark Office for consideration in connection with the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

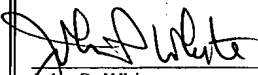
No fee, other than the enclosed \$395.00 RCE filing fee, is deemed necessary in connection with the filing of this supplemental Information Disclosure Statement. However, if any additional fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,

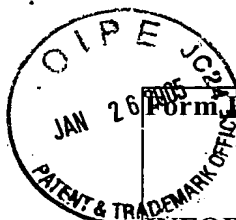


John P. White  
Registration No. 28,678  
Attorney for Applicants  
Cooper & Dunham, LLP  
1185 Avenue of the Americas  
New York, New York 10036  
(212) 278-0400

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
John P. White  
Reg. No. 28,678

1/24/05  
Date



Form PTO-1449

**U.S. Department of Commerce  
Patent and Trademark Office**

<b>Application Number</b>	09/654,462
<b>Filing Date</b>	September 1, 2000
<b>First Named Inventor</b>	Thomas M. Jessell
<b>Art Unit</b>	1632
<b>Examiner Name</b>	A.M. Falk, Ph.D.
<b>Attorney Docket No.</b>	62166/JPW/MVM

**INFORMATION DISCLOSURE STATEMENT**

(Use several sheets if necessary)

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document

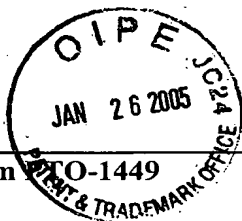
**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Country Code <sup>3</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	1	WO95/23223 A1		08-31-1995	The Trustees of Columbia University in the City of New York	
	2	WO99/00516 A2		01-07-1999	Medical Research Council	
	3	WO00/18884 A1		04-06-2000	The Trustees of Columbia University in the City of New York	
	4	WO00/09676 A2		02-24-2000	California Institute of Technology	

**EXAMINER  
SIGNATURE****DATE CONSIDERED**

\***EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

Applicant: Thomas M. Jessell et al.  
U.S. Serial No.: 09/654,462  
Filed: September 1, 2000  
Exhibit A



<b>Form PTO-1449</b> <b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	<b>Application Number</b>	09/654,462
	<b>Filing Date</b>	September 1, 2000
	<b>First Named Inventor</b>	Thomas M. Jessell
	<b>Art Unit</b>	1632
	<b>Examiner Name</b>	A.M. Falk, Ph.D.
	<b>Attorney Docket No.</b>	62166/JPW/MVM

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	5	Briscoe, J. et al. (1999) "Homeobox gene <i>Nkx2.2</i> and specification of neuronal identity by graded Sonic hedgehog signalling," <i>Nature</i> 398: 622-627;	
	6	Cai, J. et al. (1999) "Expression and regulation of the chicken <i>Nkx-6.2</i> homeobox gene suggest its possible involvement in the ventral neural patterning and cell fate specification," <i>Dev. Dyn.</i> 216: 459-468;	
	7	Cai, J. et al. (2001) "Mice lacking the <i>Nkx6.2 (Gtx)</i> homeodomain transcription factor develop and reproduce normally," <i>Molecular and Cellular Biology</i> 21: 4399-4403;	
	8	Palmer, T.D. et al. (1999) "Fibroblast growth factor-2 activates a latent neurogenic program in neural stem cells from diverse regions of the adult CNS," <i>The Journal of Neuroscience</i> 19: 8487-8497;	
	9	Qiu, M. et al. (1998) "Control of anteroposterior and dorsoventral domains of <i>Nkx-6.1</i> gene expression relative to other <i>Nkx</i> genes during vertebrate CNS development," <i>Mechanisms of Development</i> 72: 77-88;	
	10	Sander, M. et al. (2000) "Ventral neural patterning by <i>Nkx</i> homeobox genes: <i>Nkx6.1</i> controls somatic motor neuron and ventral interneuron fates," <i>Genes &amp; Development</i> 14: 2134-2139; and	
	11	Tanabe, Y. et al. (1998) "Specification of motor neuron identity by the MNR2 homeodomain protein," <i>Cell</i> 95: 67-80.	

<b>EXAMINER SIGNATURE</b>	<b>DATE CONSIDERED</b>
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\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a checkmark here if English language Translation is attached.